

Syllabus

Course description

Course title	Materials and sensors for Food Engineering and Biotechnologies
Course code	46039
Scientific sector	ING-INF/01
Degree	PhD in Food Engineering and Biotechnologies; PhD in Advanced Systems Engineering
Semester	1
Year	1
Academic year	2019/2020
Credits	3
Modular	NO

Total lecturing hours	30
Total lab hours	
Total exercise hours	
Attendance	
Prerequisites	none
Course page	

Specific educational objectives	Basic understanding of materials and sensor technologies; experimental praxis with different sensors; practice with presentations and scientific writing
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Lecturer	Prof. Paolo Lugli
Scientific sector of the lecturer	ING-INF/01
Teaching language	English
Office hours	9
Teaching assistant (if any)	
Office hours	
List of topics covered	Introduction to materials and nanostructures, sensor technologies, fabrication techniques, printing techniques, additive manufacturing; overview of the application in the fields of biotechnology, food engineering and agriculture
Teaching format	Frontal lectures, individual literature review, presentation on a given topic, small practical project

Learning outcomes	<p> Knowledge and understanding: theoretical know-how on sensor technologies and materials Applying Knowledge and understanding: practical know-how on sensor technologies and materials Making judgments: Communication skills: ability to give a presentation supported by power-point Learning skills: performing a literature review on a given topic; extracting the most valuable information and embedding it in a presentation, scientific writing </p>
Assessment	Presentation and project
Assessment language	English
Evaluation criteria and criteria for awarding marks	Quality of the presentation, engagement in the lab project
Required readings	Assigned in class
Supplementary readings	Assigned in class